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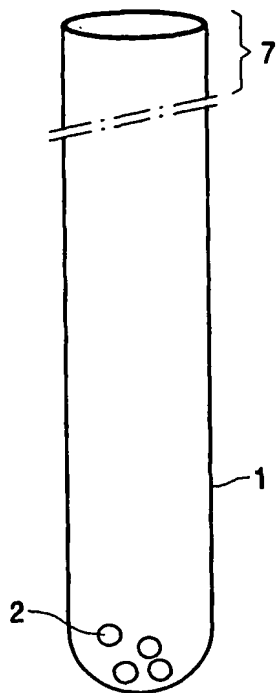


FIG. 2

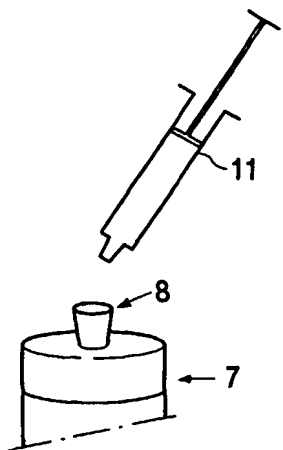


FIG. 3

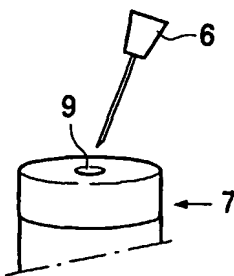


FIG. 4

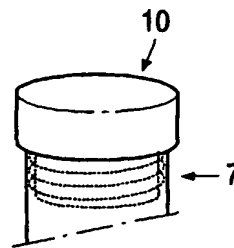


FIG. 5

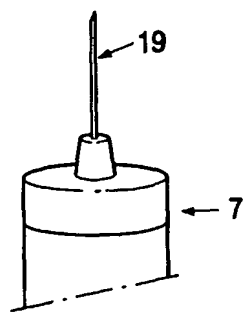


FIG. 6

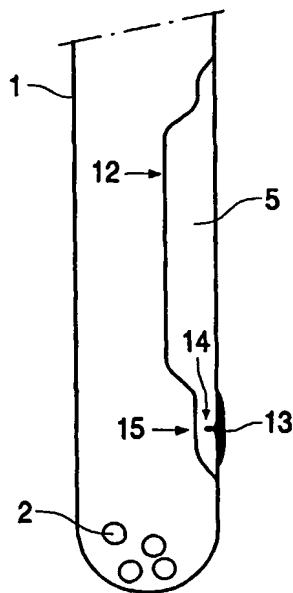


FIG. 7

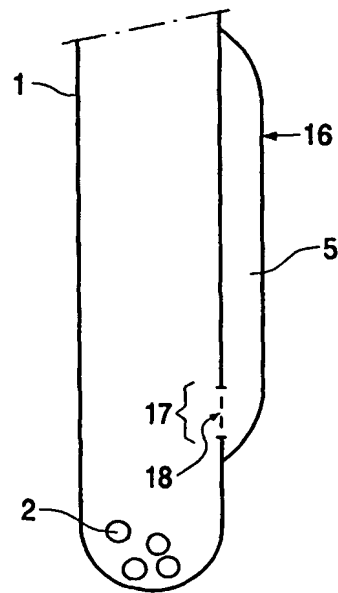


FIG. 8

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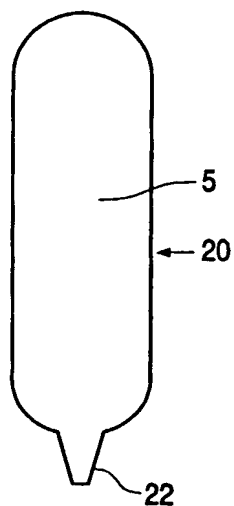


FIG. 9

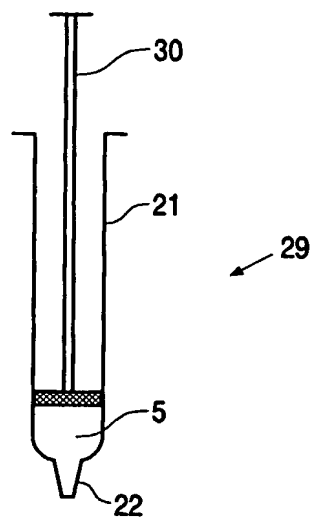


FIG. 10

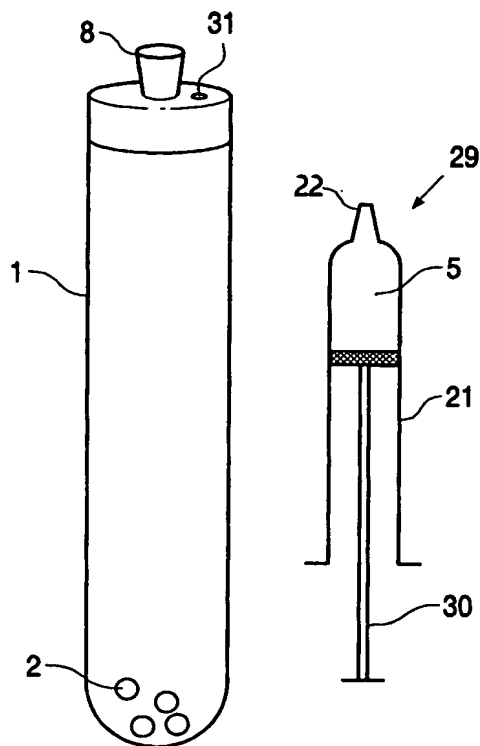


FIG. 11

Figure 12. Strategies followed in the given examples

Figure 12.1 *Ex vivo* monitoring of immune response against tetanus toxoid.

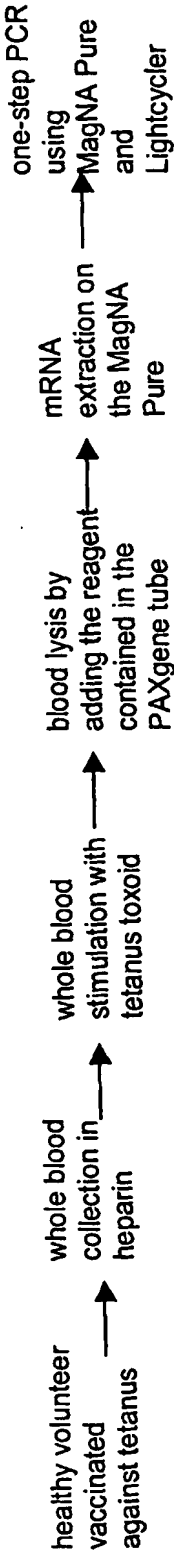
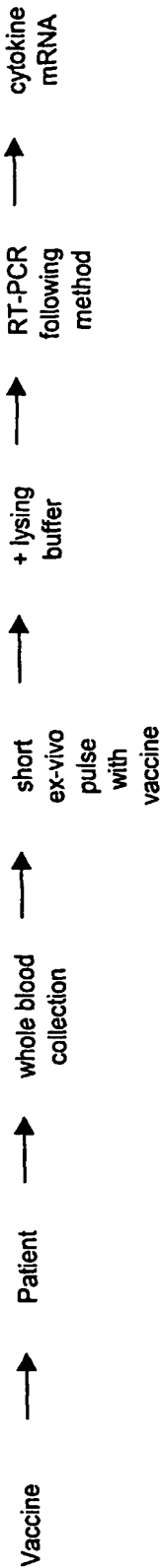


Figure 12.2 Strategy followed in example 3.

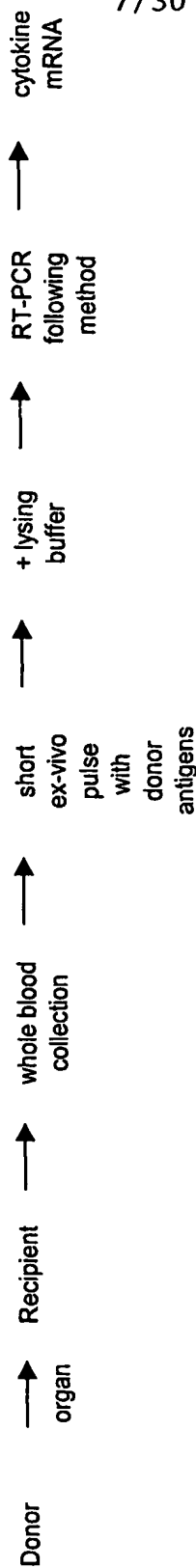


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Figure 12.3 Strategy followed in example 4



Figure 12.4 Strategy followed in example 5.



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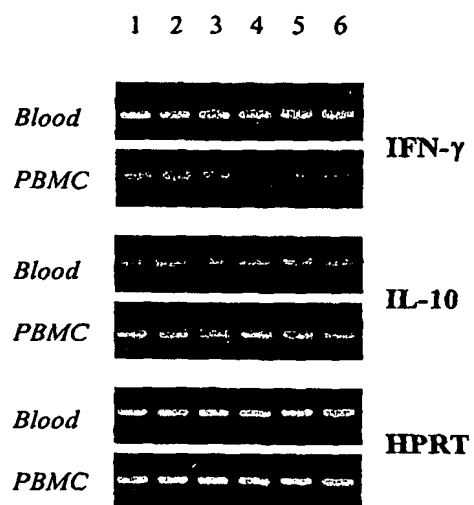


Figure 13.1

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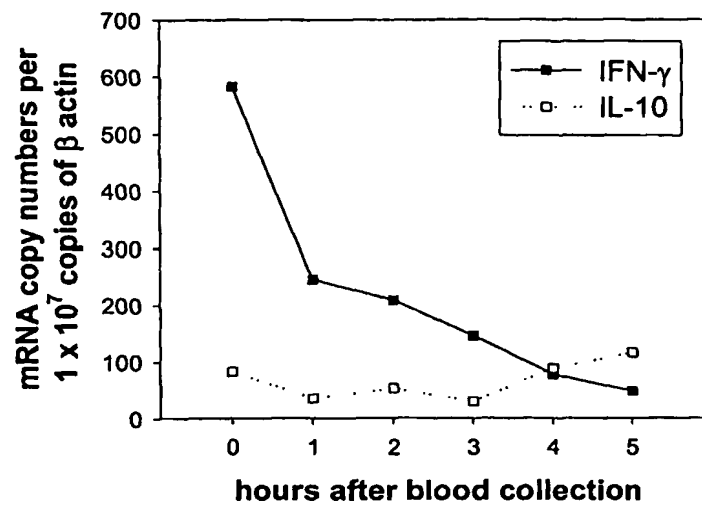


Figure 13.2

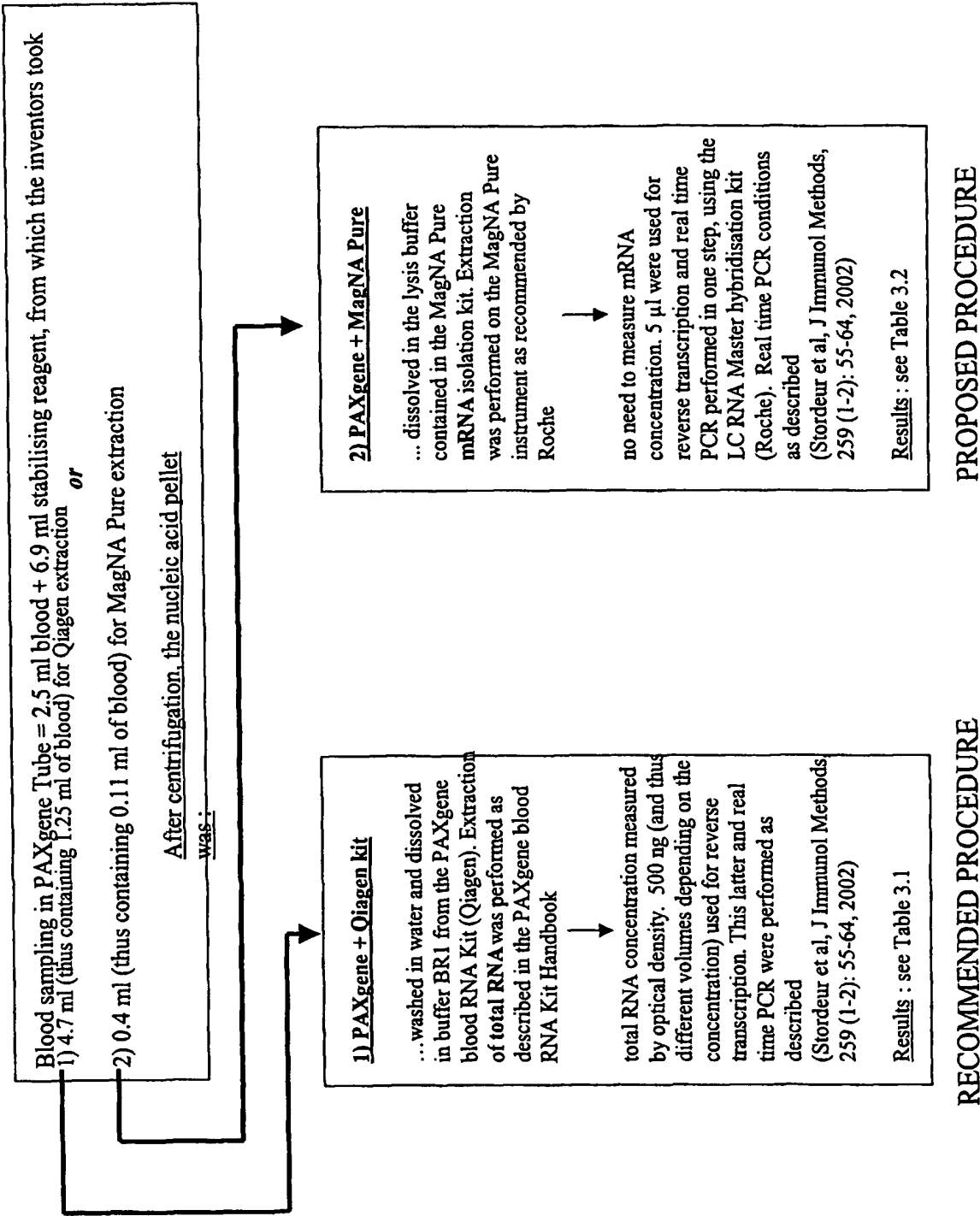


Figure 14

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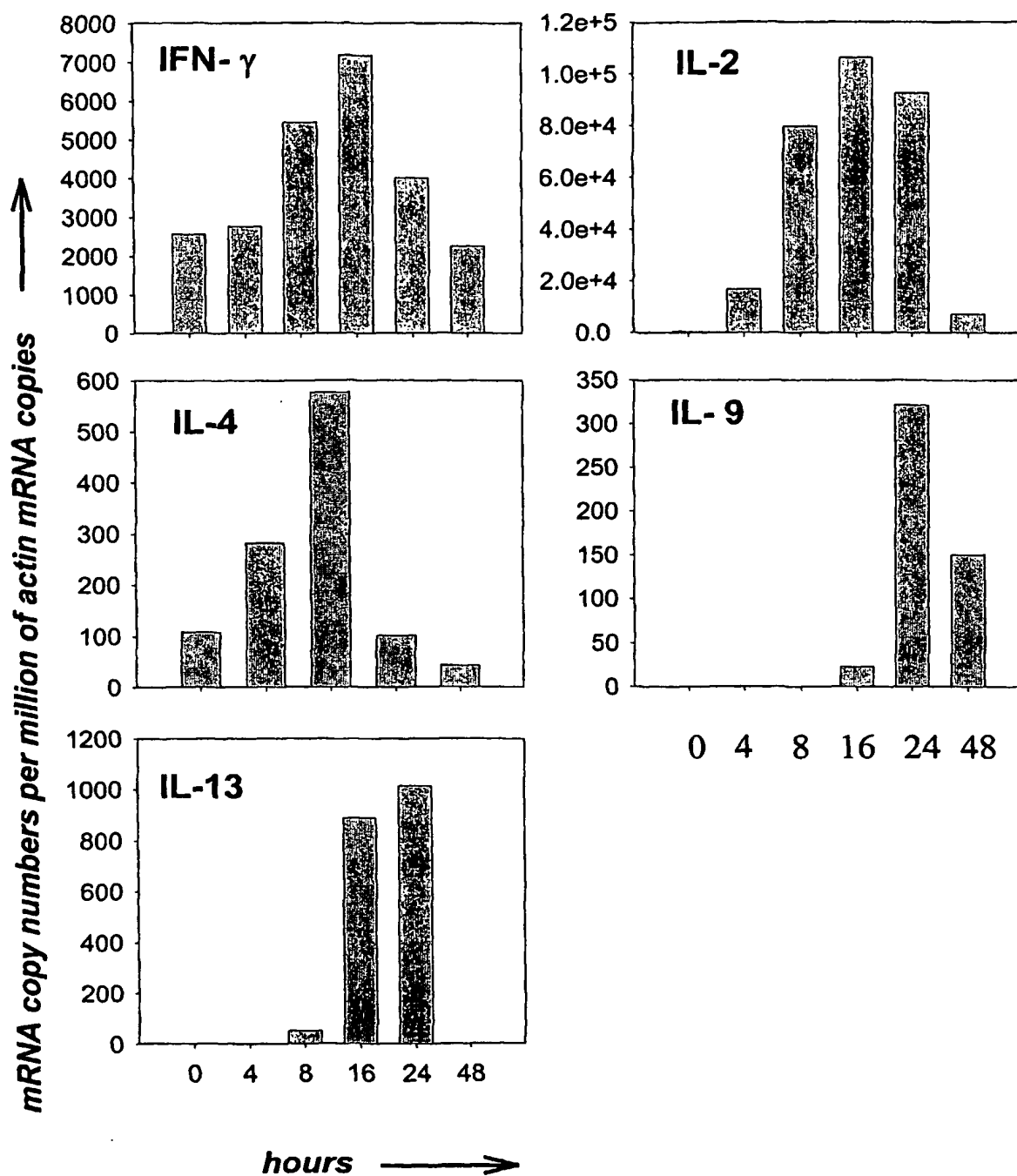


Figure 15

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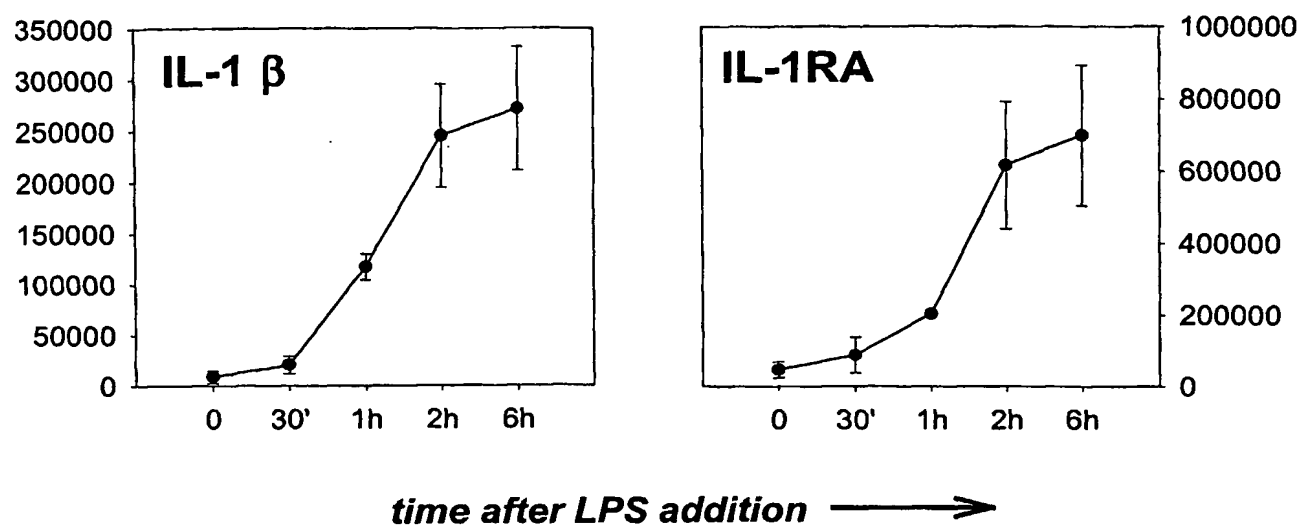


Figure 16

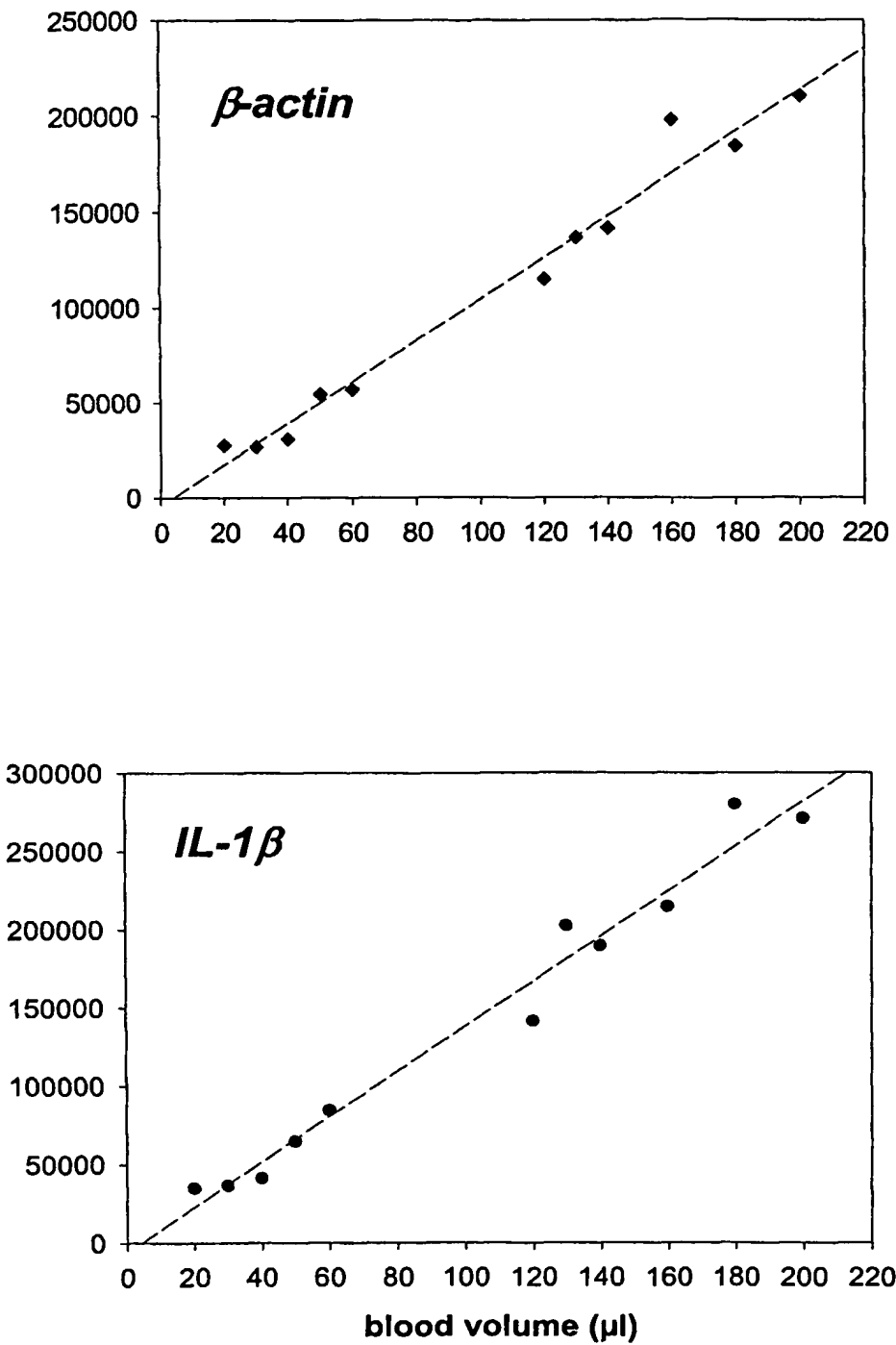


Figure 17

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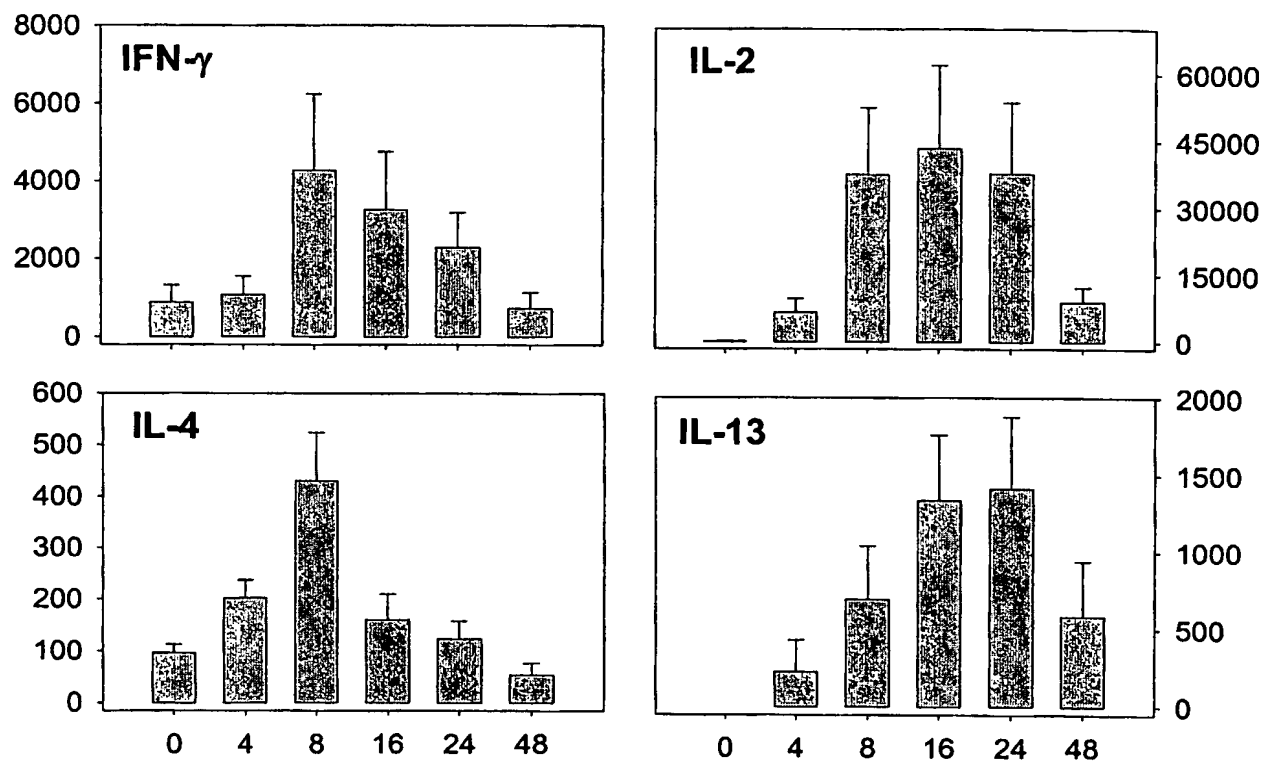


Figure 18

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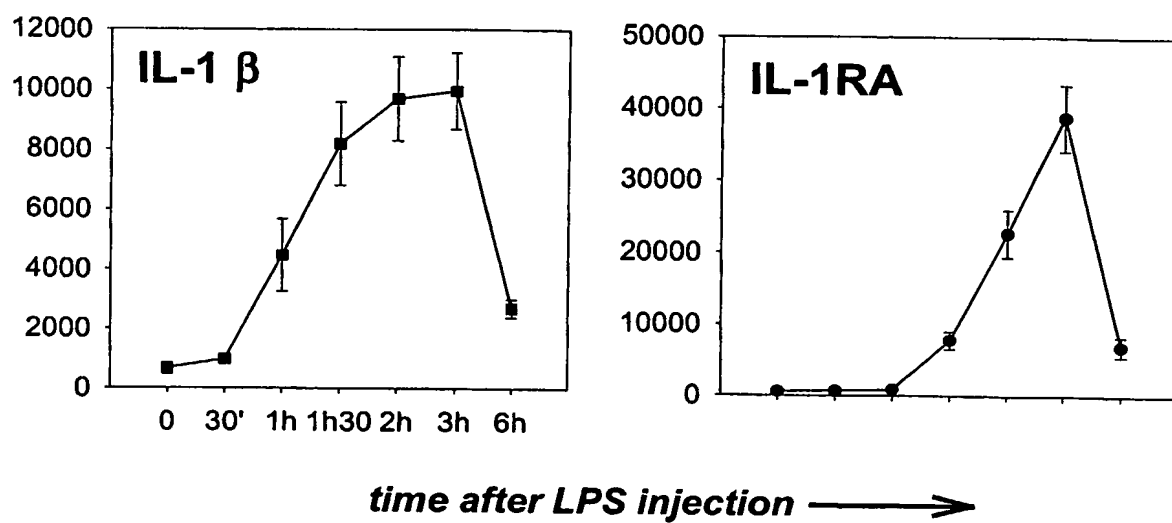


Figure 19

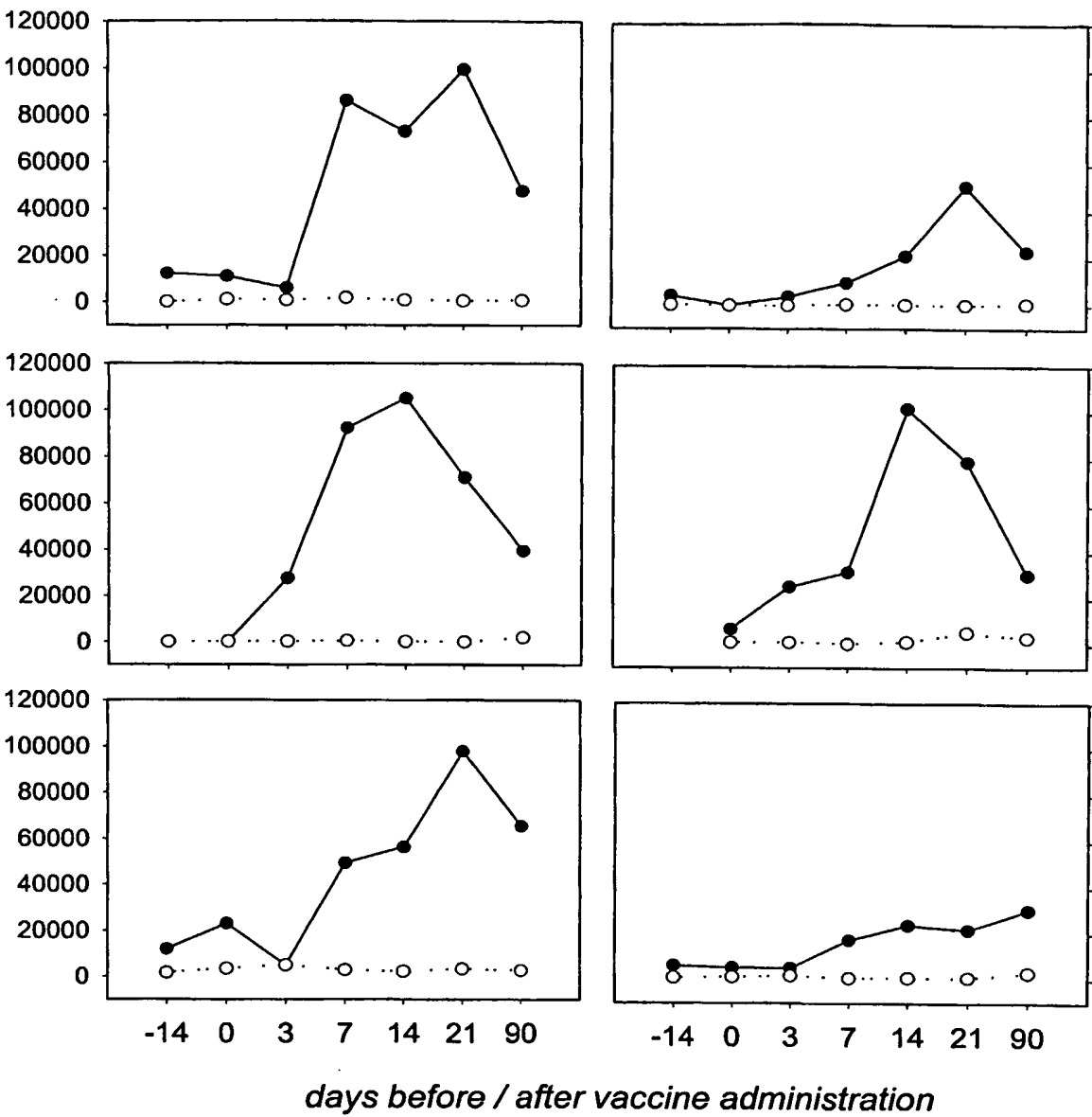


Figure 20

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Procedure to analyse blood cytokine mRNA expression

- **Whole blood** sample incubation in the presence the tested potential immuno-modulator (antigen, allergen, cell, xenobiotic,...)
- Blood cells lysis and **mRNA stabilisation** using the reagent contained in the *PAXgene* tube
- **Automated** mRNA extraction and preparation of the reaction mixture for one-step RT-PCR using an automated device (*Magna Pure instrument – Roche Diagnostics*)
- Quantification of cytokine mRNA levels by **real-time PCR** using the *Lightcycler instrument (Roche Diagnostics)*

Figure 21

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**Automated mRNA extraction and reagent mix preparation
on the MagNA Pure : direct correlation between starting
cell number and found copy number**

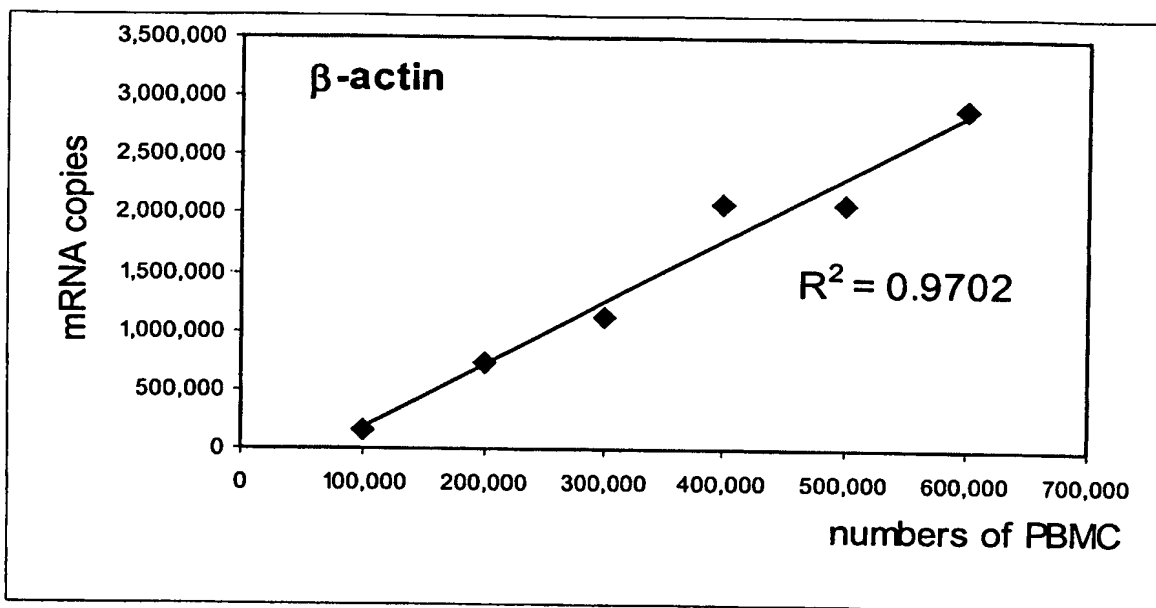


Figure 22

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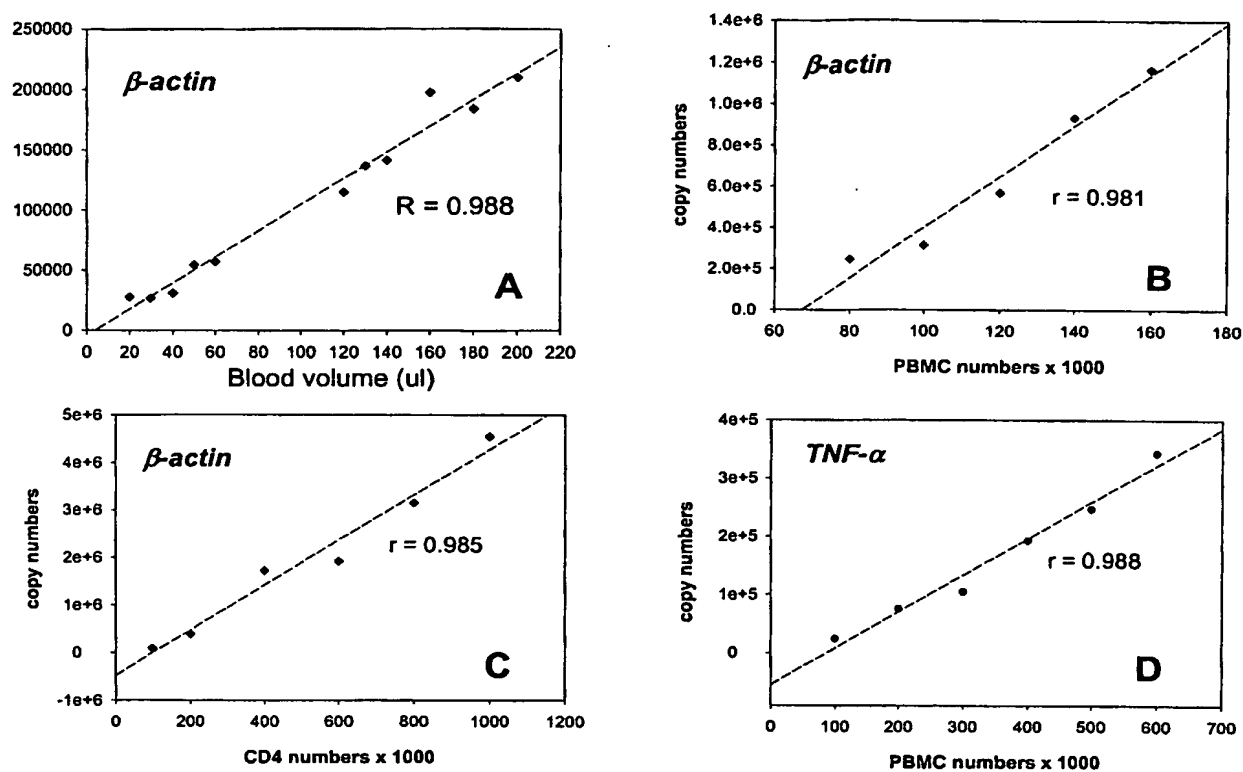


Figure 23

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Immune monitoring in cancer immunotherapy

- 7/99: melanoma of the right scapula. Excision
- 8/01: SC M+ arm, back, abdomen, right testis
- 4/02: right orchidectomy
- 4/02: pre-vaccine check-up
- 5/02: initiation of the vaccine program

Figure 24

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In vitro stimulation of whole blood
to assess immune response to MAGE-3

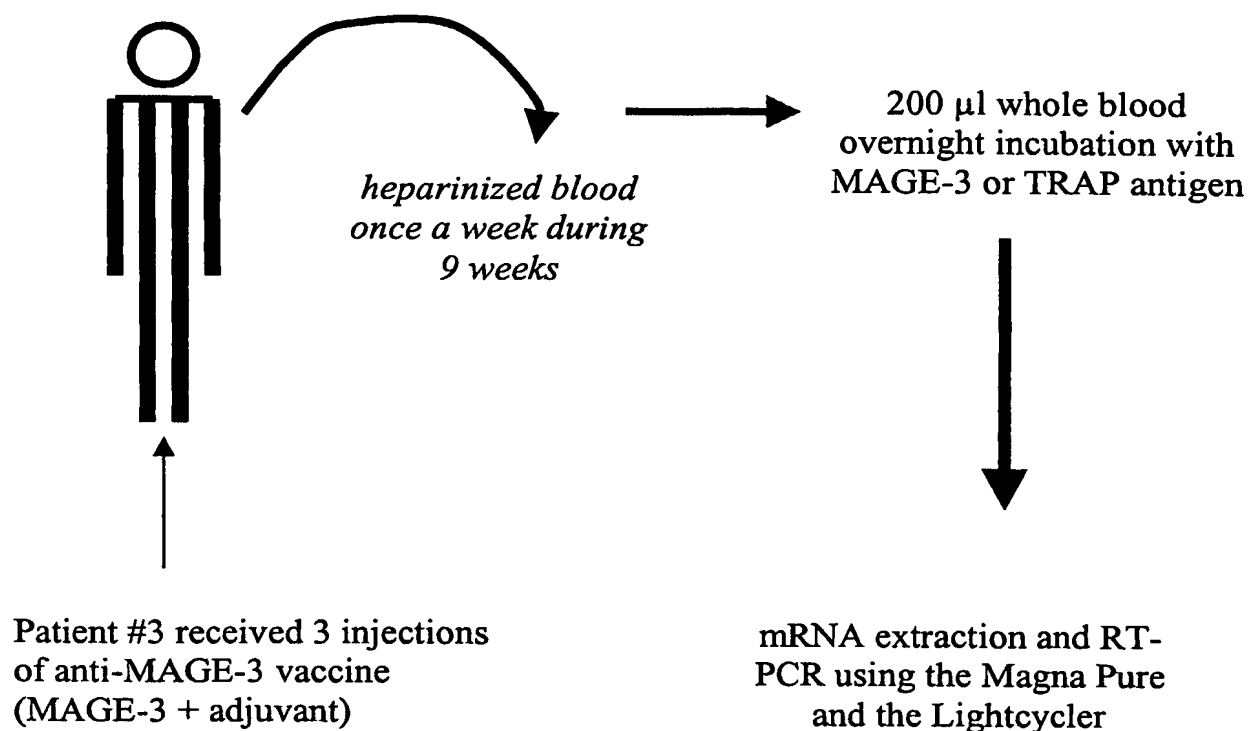


Figure 25

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IL-2 mRNA in whole blood following MAGE-3 vaccination in Patient #3

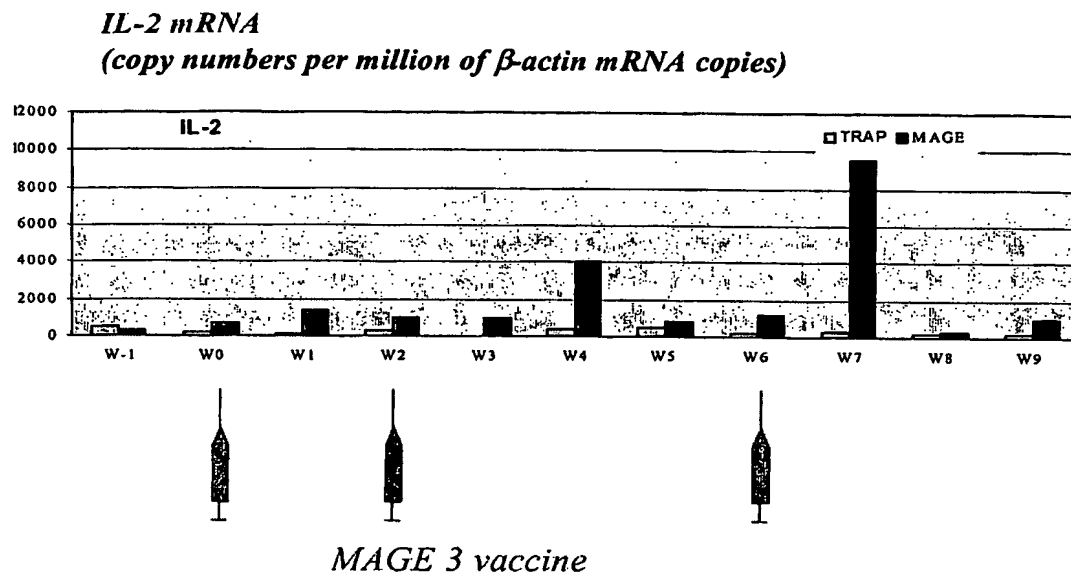


Figure 26

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***In vitro* stimulation of whole blood : evaluation of
immune response to allergen**

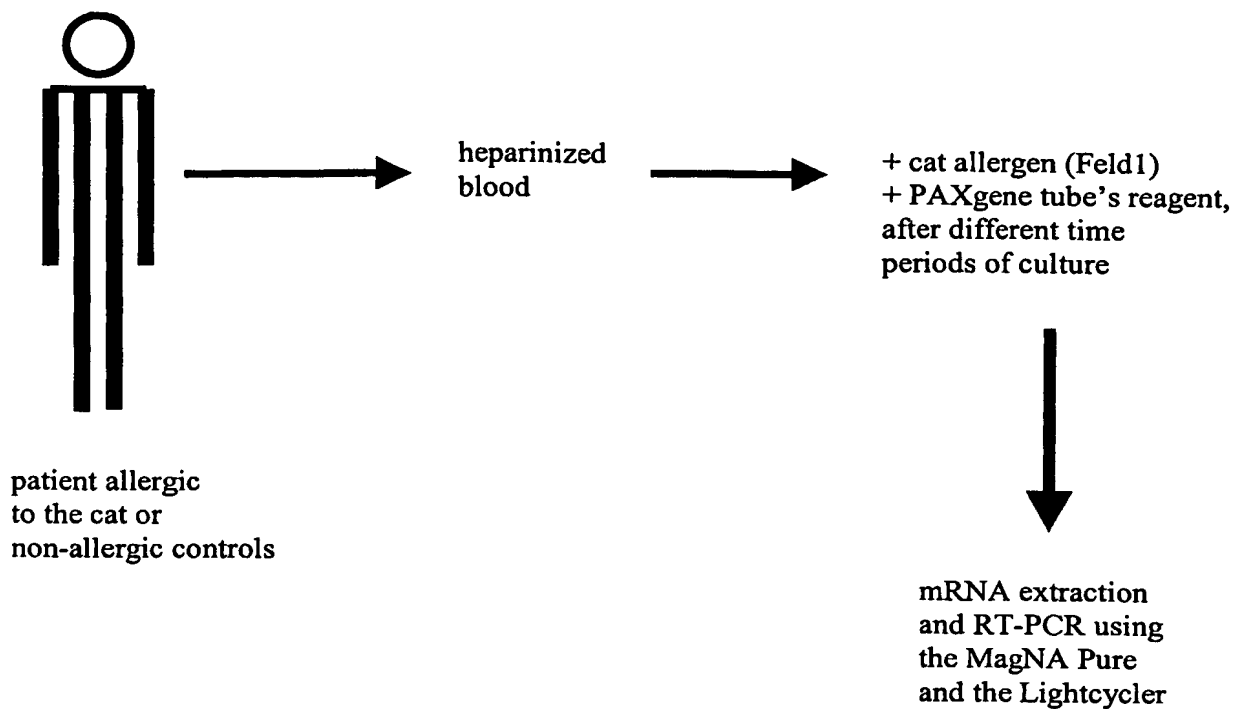


Figure 27

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***In vitro* stimulation of whole blood : evaluation of
immune response to Feld1**

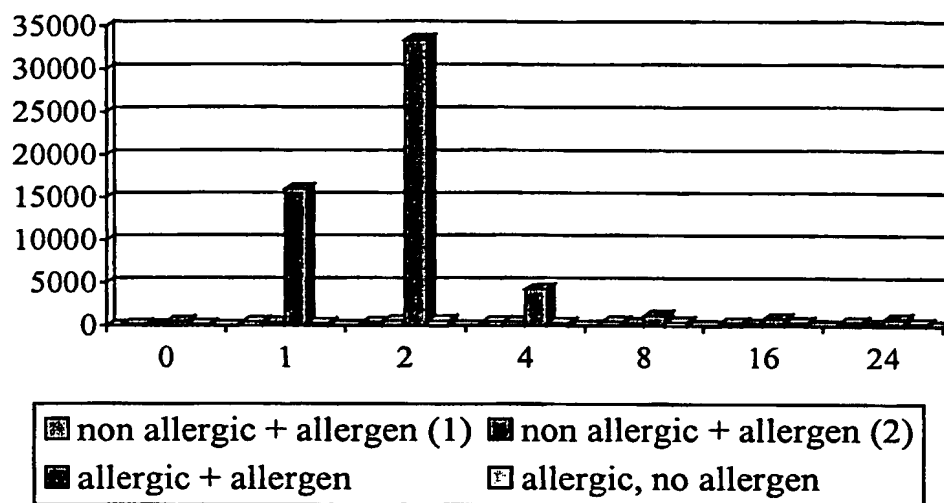


Figure 28

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In vitro stimulation of whole blood :
dose-response to Feld1

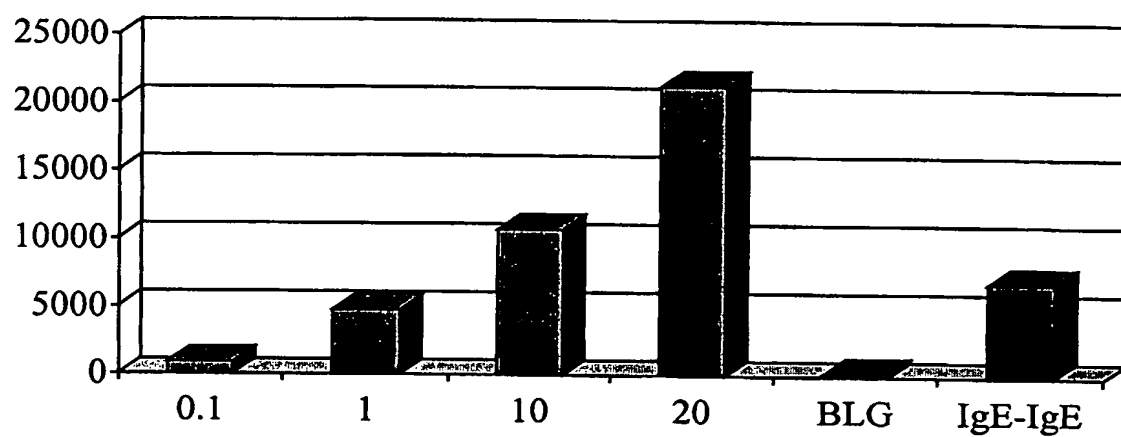


Figure 29

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**IL-4 mRNA levels after whole blood stimulation with Feld1
are higher in allergic patients compared to healthy
controls**

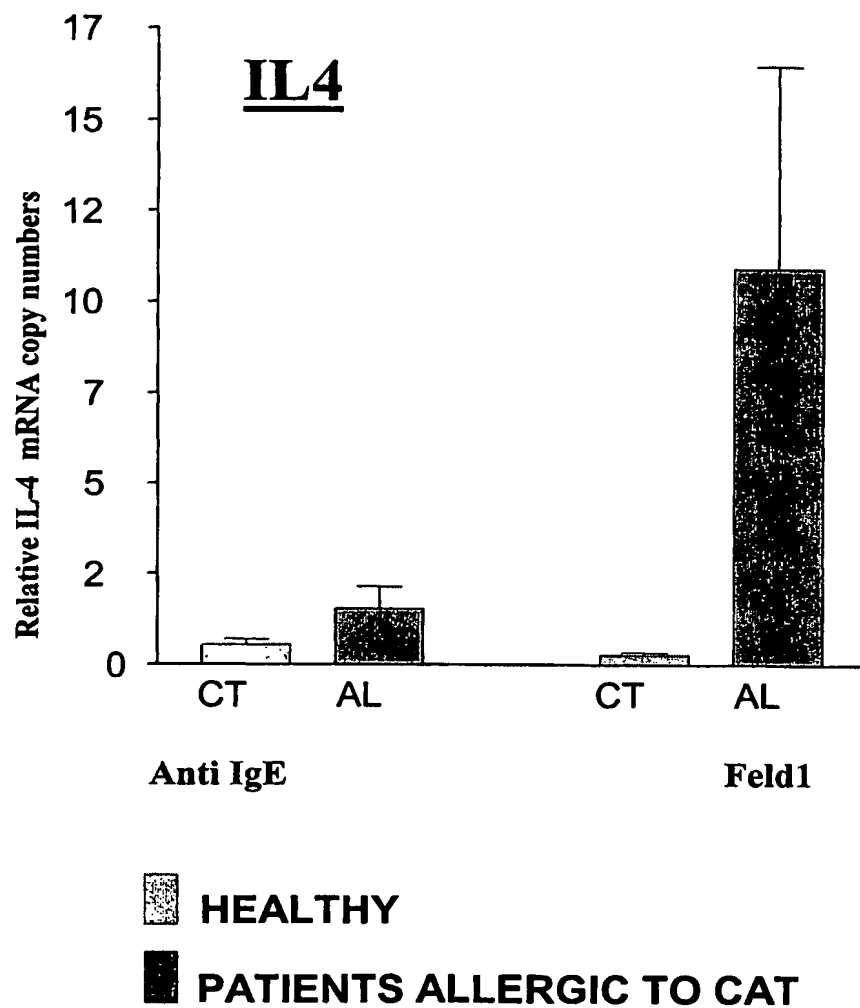


Figure 30

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***In vitro* stimulation of whole blood : assessment
of T cell response to GAD65**

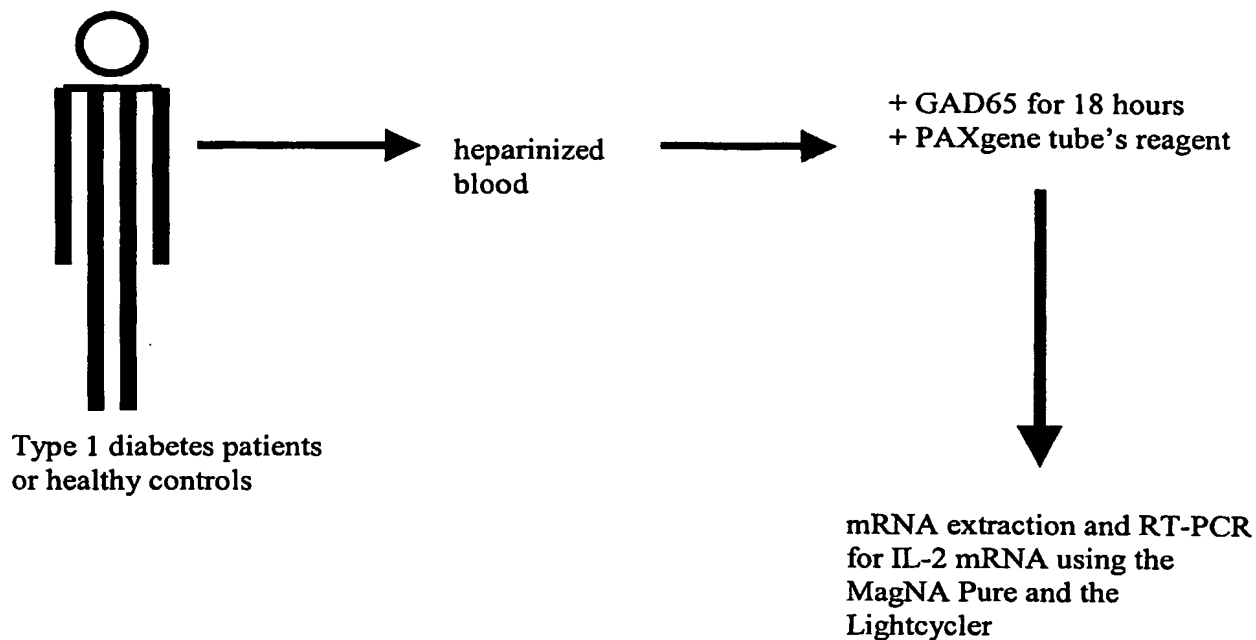


Figure 31

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In vitro stimulation of whole
blood : assessment of T cell
response to GAD65

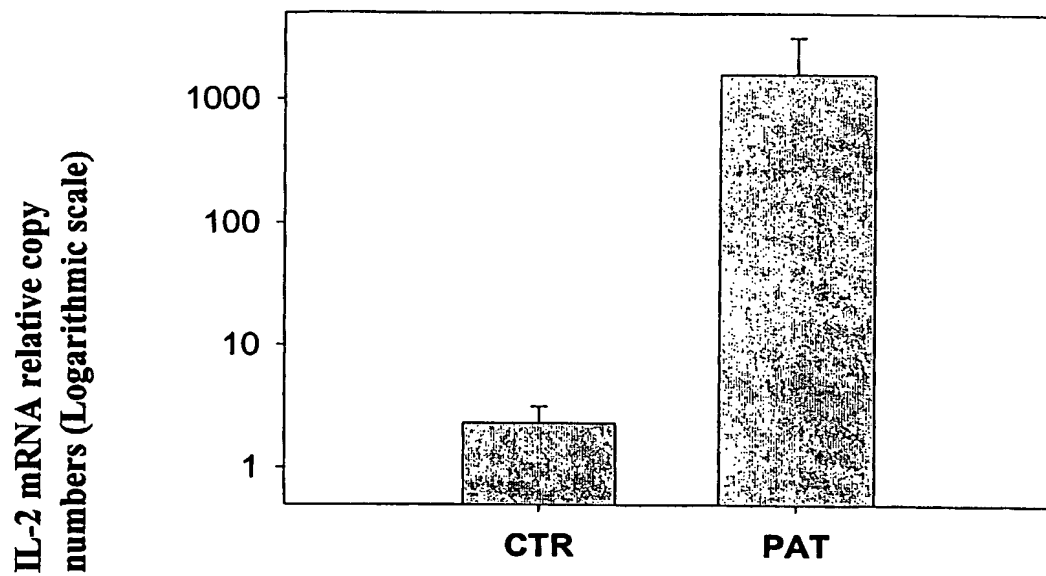


Figure 32

Monitoring of alloreactive immune response :
quantification of IL-2 mRNA in a whole blood +
dendritic cells system

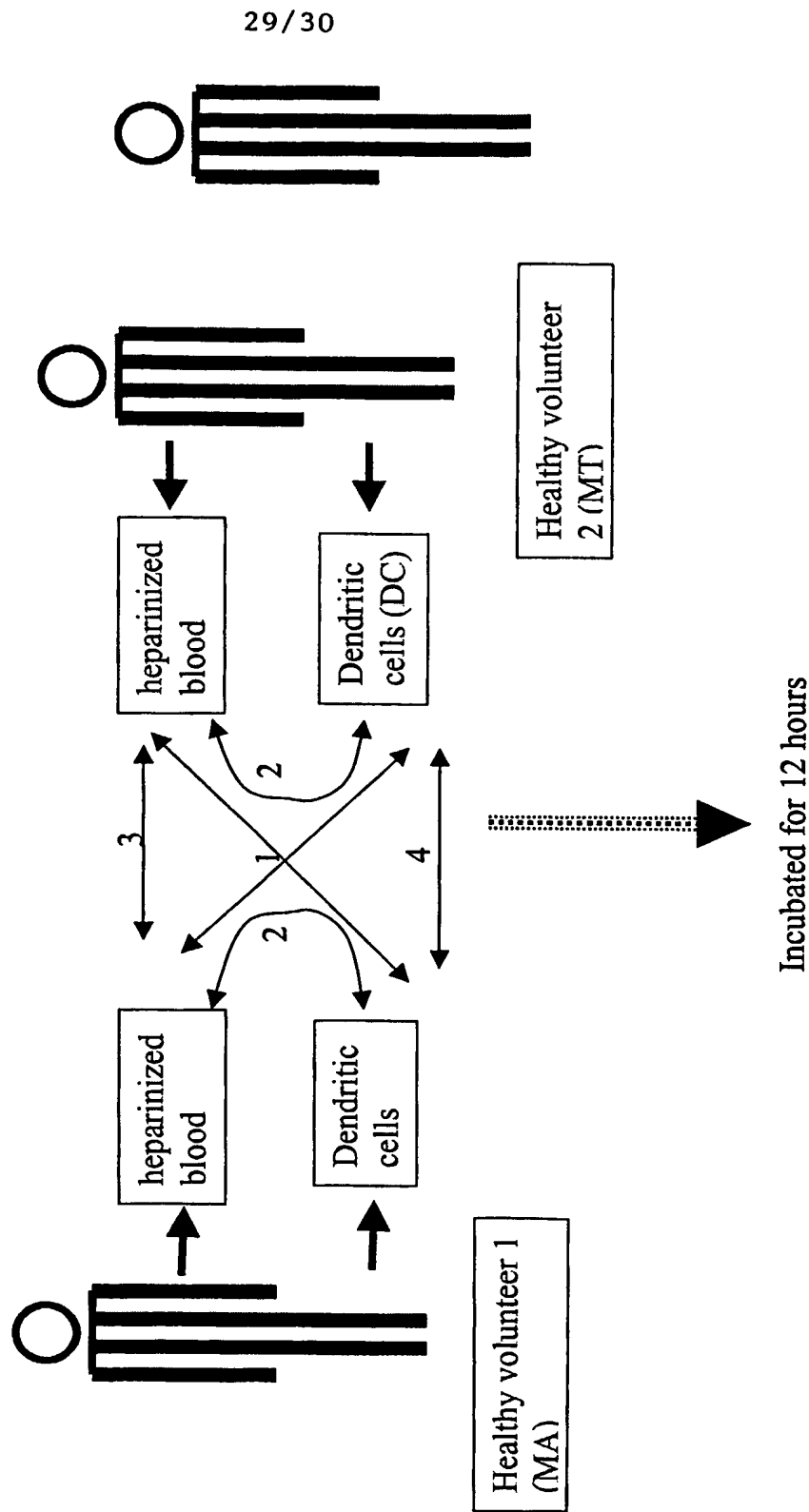


Figure 33

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**Monitoring of alloreactive immune response :
quantification of IL-2 mRNA in a whole blood +
dendritic cells system**

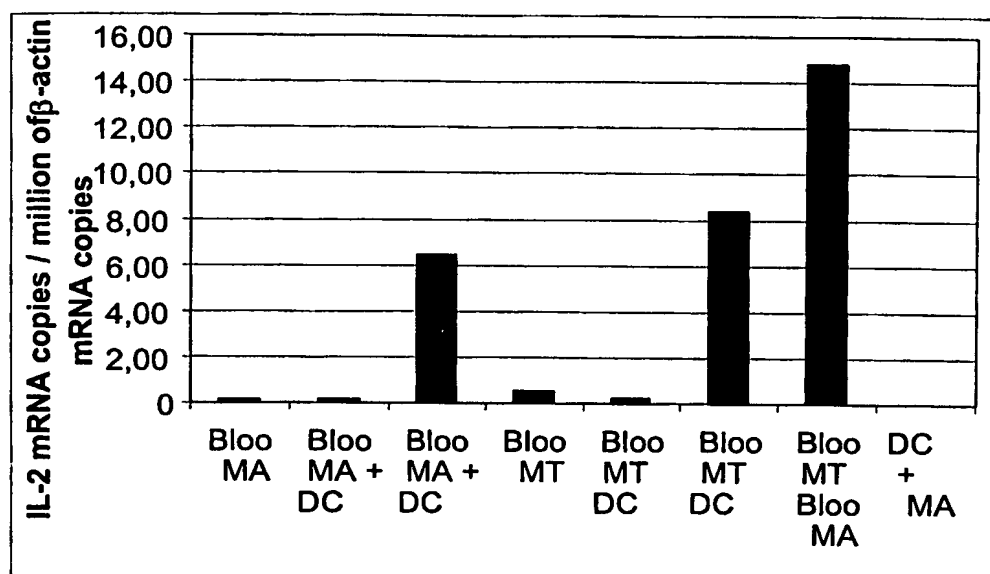


Figure 34